

REMARKS

In response to the Office Action dated February 26, 2002, Applicants respectfully request reconsideration and withdrawal of the rejections of the claims. The indication that claims 6-8, 29, 30, 33, 34, 39-41, 65, 66, 69, 70, 75, 77, 78, 101, 102, 105 and 106 contain allowable subject matter is noted with appreciation. In response thereto, claim 6 has been rewritten in independent form as new claim 109 and claim 33 has been rewritten in independent form as new claim 112. New claims 110, 111 and 113-117 respectively correspond to allowable claims 7, 8 and 30-34, respectively.

Claims 42, 43 and 45 were rejected under the second paragraph of 35 U.S.C. §112, as being indefinite. In response thereto, claim 42 has been amended to remove the basis for the rejection.

All pending claims, other than those identified above as containing allowable subject matter, were rejected under 35 U.S.C. §102 or 103, principally on the basis of the Selker patent (U.S. Patent No. 5,736,974). That patent is concerned with the tradeoffs between required screen area and low visibility and/or user recognition in a graphic user interface when a large number of menu choices, e.g. icons, are to be displayed. To address this concern, the patent discloses a technique wherein the distance between an icon menu 30 and a cursor 20 is computed, and when the vertical component of this distance falls below a threshold level, the icon closest to the cursor is identified. The display of this nearest icon is then increased in size, as depicted in Figure 2. As the cursor is moved closer to the icon menu, the size of the identified icon is increased by a greater amount, as illustrated in Figure 3.

It is respectfully submitted that the behavior of the user interface disclosed in the Selker patent is not the same as that of the present invention, and consequently does not provide the same user experience. For instance, as can be seen in the sequence depicted in Figures 1-3, as a given icon is increased in size, it obliterates the display of the icons adjacent to it. If the icon 40 whose size is to be increased corresponds to the element "K" in the series of icons forming the menu 30, it can be seen in the example of Figure 1 that the expanded icon obliterates the view of icons "J" and "L". As the size of the icon 40 continues to increase, additional icons in the menu 30 become obliterated. Thus, in the example of Figure 2, icons I-M are not visible, and in Figure 3A icons H-N are obscured. Thus, if the user's intent was to select icon J, rather than icon K, the ability to do so is made more difficult, since the desired icon is no longer visible.

In contrast, the user interface of the present invention does not present such difficulties. As can be seen in the examples of Figures 6, 7 and 8A-8D, the icon that is closest to the cursor is magnified. In addition, the display of the icons on either side of this magnified icon are also adjusted. One adjustment consists in the positioning of these other icons, to accommodate the increased size of the icon closest to the cursor. This concept is illustrated most clearly in the sequence of Figures 8A-8D, where it can be seen that the icons to the left of the cursor 610 are moved farther to the left in the display, and likewise the icons to the right of the cursor are moved farther to the right. Thus, by positioning the icons in this manner, none of them are obliterated by the magnified size of the central icon.

As a second feature of the invention, the icons adjacent the central icon are also magnified in size. In the illustrated embodiment of the invention, these other icons are

magnified by a lesser amount, in accordance with a sine function. Thus, the user's ability to easily recognize these adjacent icons is enhanced, in contrast to the result depicted in the Selker patent, where the adjacent icons remain at the minimized sizes.

It is respectfully submitted that these distinguishing features of the invention are recited in the pending claims, and neither disclosed nor otherwise suggested by the Selker patent. For example, claim 35 recites a computer system having, among other elements, a processor means "for varying a *position* of at least one of said plurality of tiles on said display when said cursor is proximate said bar on said display." Although this claim was rejected in conjunction with claim 1 as being anticipated by the Selker patent, the Office Action does not explain how that patent is being interpreted to vary the *position* of an icon when the cursor is located proximate the icon menu. It is respectfully submitted that the patent only discloses the concept of changing the size of the icons in response to the position of the cursor. It does not disclose repositioning any icons in the menu. If the rejection of claim 35 as being anticipated by the Selker patent is maintained, the Examiner is respectfully requested to explain the portions of its disclosure that are deemed to anticipate the claimed subject matter.

Claims 1 and 118 recite the combination of changing at least one element of the user bar, and repositioning other elements to accommodate the changed size. These claims are submitted to be allowable over the Selker patent for at least the same reason as claim 35.

Original claim 73, which is now been incorporated into claim 71, recited the step of selectively magnifying at least one of the items closest to the cursor to a first level, and magnifying items proximate to that one item to other levels less than the first level. The

rejection of claim 73 referred to the portion of the Selker patent illustrated in Figure 6, where the display of selected icons is distorted, so that they appear to reach out for the cursor. In other words, the icons are skewed. In contrast to the claimed subject matter, however, the patent does not disclose that a given icon, e.g. icon "E", is magnified to a first level, and other icons are magnified to levels "less than said first level." Rather, for the situation in which multiple icons are expanded, the patent only teaches that each icon is expanded by the same amount. See, for example, column 7, lines 12-26, wherein the vertical distance d is used to determine the amount of expansion for each icon. The patent only teaches that the amount of *skew* varies in dependence upon the distance of an icon from the cursor. However, it does not disclose that the *magnification* is varied.

Furthermore, the patent does not disclose that the other icons which are magnified, in addition to the icon closest to the cursor, are those which are "proximate" the item closest to the cursor. Rather, the patent discloses that these icons can be at arbitrary locations on the screen. The specific icons that are expanded are those which remain after the user has gone through a deselection process. In other words, the icons that are expanded are those chosen by the user, rather than being those proximate the icon that is closest to the cursor. Consequently, it can be seen from a comparison of Figures 5 and 6 of the Selker patent with Figures 6 and 7 of the present application that a significantly different effect is presented by the technique of the present invention. As described in the specification, the result is a type of "fisheye" effect, in which one icon is magnified by the maximum amount, and adjacent icons are magnified by a lesser amount in accordance with

their distance from the cursor. The Selker patent does not teach this type of effect, nor its attendant advantages discussed above.

Again, if the rejection of claim 71 is maintained, the Examiner is respectfully requested to explain how the Selker patent is being interpreted to anticipate the claimed subject matter.

In addition to these fundamental distinctions, other features of the invention recited in the claims are likewise neither disclosed nor suggested by the Selker patent. For example, claims 9 and 81 recite that the size of the tiles as varied on the basis of a sine function. The rejection of these claims acknowledges that the Selker patent does not disclose this concept, but concludes that it would have been obvious to employ it in the system of the Selker patent because sine functions are known. It is respectfully submitted, however, that there is no reason to employ a sine function to vary the size of icons in the system of the Selker patent. As discussed above in connection with claim 71, that patent does not disclose the concept of increasing the size of icons proximate a selected icon by lesser amounts. Rather, it only discloses that arbitrarily located icons, designated by the user, are increased in size by the same amount. Hence, there is no apparent reason to employ a sine function in the system of the Selker patent.

Claim 12 recites a user selection function for permitting a user to select a value of at least one characteristic of the display bar, and claims 13-15 and 19 specify certain characteristics. The rejection of claim 12 refers to the Selker patent at column 9, lines 29-35, as well as claim 1 thereof. It is respectfully submitted, however, that these portions of the reference do not disclose, nor otherwise suggest, that the size factor, or other display

features, are selected by the *user*. Rather, these values are automatically derived or calculated.

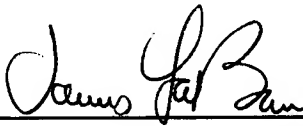
Claim 22 recites that two of the tiles are permanent residents of the bar and define end points thereof, and other tiles can be selectively added to and deleted from positions intermediate the two tiles by a user. It is respectfully submitted that this subject matter is not suggested by the Selker patent, whether considered by itself or in combination with the Malamud patent.

A number of other claimed features of the invention are likewise not disclosed nor suggested by the Selker patent, whether considered alone or in combination with other references. In view of the foregoing distinctions, however, a detailed discussion of these other features is not presented in this response, for the sake of brevity.

For the foregoing reasons, it is respectfully submitted that all pending claims are allowable over the references of record. Reconsideration and withdrawal of the rejections, and allowance of all claims are respectfully requested.

Respectfully submitted,

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Date: June 26, 2002



Attachment to Amendment dated June 26, 2002

Mark-Up of Claims 1, 4, 5, 7, 8, 9, 22, 42, 45, 71, 72, 74 76-79 and 107

1. (Amended) A computer system comprising:
 - a display;
 - a cursor for pointing to a position within said display;
 - a bar rendered on said display and having a plurality of tiles associated therewith; and
 - a processor for varying a size of at least one of said plurality of tiles on said display when said cursor is proximate said bar on said display and for repositioning others of said plurality of tiles along said bar to accommodate the varied size of said one tile.
4. (Amended) The computer system of claim 1, wherein said at least one of a plurality of tiles includes a tile to which said cursor is closest and a plurality of tiles adjacent to [either side of] said tile.
5. (Amended) The computer system of claim 1, wherein said processor [also varies a position of at least another] repositions said others of said plurality of tiles in accordance with a predefined relationship between an effect width W, a default height h of said at least one of said plurality of tiles and a selected maximum height H of said at least one of said plurality of tiles.

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7. (Amended) The computer system of claim 6, wherein said [at least another] others of said plurality of tiles each has a left edge and a right edge located at distances d_1 and d_2 from said cursor, and [wherein said another of said plurality of tiles] is moved to a position such that said left edge has a distance d_1' from said cursor and said right edge has a distance d_2' from said cursor wherein:

$$d_1' = S \times \text{sine}(\pi \div 2 \times d_1 \div W)$$

$$d_2' = S \times \text{sine}(\pi \div 2 \times d_2 \div W).$$

8. (Amended) The computer system of claim 7, wherein said at least one of said plurality of tiles is scaled by a factor of:

$$1 + (d_2' - d_1') \div (d_2 - d_1)$$

[wherein d_1 and d_2 are distances from said cursor to said left edge and right edge, respectively, of said at least one another of said plurality of tiles prior to being moved to said position].

9. (Amended) The computer system of claim 1, wherein said processor varies the size of [said] at least [one] some of said others of said plurality of tiles [is varied] based on a sine function.

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22. (Amended) The computer system of claim 1, wherein [at least] two of said plurality of tiles are permanent residents of said bar and define endpoints thereof, and other tiles can be selectively added to and deleted from positions intermediate said two tiles by a user.

42. (Amended) The computer system of claim 35, wherein said processor also varies a magnification of said at [another] least one of said plurality of tiles.

45. (Amended) The computer system of claim 43, wherein said magnification of said at least [another] one of said plurality of tiles is varied based on a sine function.

71. (Amended) A method for displaying items in a graphical user interface comprising the steps of:

providing a plurality of said items in a region of said graphical user interface, each of said items having a default height associated therewith;

moving a cursor along said region; and

selectively magnifying at least one of said items [based on a position of] closest to said cursor [within said region.] to a first level and magnifying items proximate to said one item to other levels less than said first level.

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Mark-Up of Claims 1, 4, 5, 7, 8, 9, 22, 42, 45, 71, 72, 74 76-79 and 107

72. (Amended) The method of claim 71, further comprising the steps of:
displaying said plurality of items in said region at said default [size] height
unless said plurality of items exceeds a predetermined number; and
scaling said plurality of items when said plurality of items exceeds said
number.

74. (Amended) The method of claim [73] 71, wherein said step of magnifying
further comprises magnifying [said at least one of] said items in accordance with a scaling
factor S, wherein S is a predefined relationship between an effect width W, said default
height h and a selected maximum height H of said items.

76. (Amended) The method of claim [73] 71, further comprising the step of:
setting, by a user, said first level of magnification.

77. (Amended) The method of claim 75, wherein [another of] said plurality of
items [has] have a left edge and a right edge respectively located at distances d_1 and d_2 from
said cursor, and wherein [said another of said plurality of] each of said proximate items is
moved to a position such that [said] its left edge has a distance d_1' from said cursor and
[said] its right edge has a distance d_2' from said cursor wherein:

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$$d_1' = S \times \sin(\pi \div 2 \times d_1 \div W)$$

$$d_2' = S \times \sin(\pi \div 2 \times d_2 \div W).$$

78. (Amended) The method of claim 77, wherein said at least one of said plurality of items is scaled by a factor of:

$$1 + (d_2' - d_1') \div (d_2 - d_1)$$

[wherein d_1 and d_2 are distances from said cursor to said left edge and right edge, respectively, of said at least one of said plurality of items prior to being moved to said position].

79. (Amended) The method of claim 71 further comprising the step of:
permitting a user to select a magnitude of said first level of magnification.

107. (Amended) A computer-readable medium usable for displaying items in a graphical user interface comprising:

means for providing a plurality of said items in a region of said graphical user interface, each of said items having a default height associated therewith;

means for moving a cursor along said region; and

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means for selectively magnifying at least one of said items [based on a position of] closest to said cursor [within said region.] to a first level and magnifying items proximate to said one item to other levels less than said first level.